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Conference Abstract

Use Cases for Scientific Name Identifiers and Name Matching: Progress report from the TETTRIs project

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Abstract

One of the tasks of the EU TETTRIs (Transforming European Taxonomy through Training, Research and Innovations) project is to document and enhance the mapping of local taxon lists (or scientific data holdings containing lists of taxon names) to global and European aggregators of scientific names and taxa. Local lists are here understood to range from spreadsheets maintained by individual researchers to large databases containing taxonomic checklists for countries or entire regions of the world (e.g., the European plant checklist Euro+Med PlantBase). Unique and resolvable name identifiers (IDs) play a central role, because they allow tracking of name usage in the target aggregator. Aggregators should (and some do) provide name matching services that provide stable resolvable name IDs that users may incorporate into their databases. So, why would the administrators of such local lists want to relate their name data to global aggregators, for example to Catalogue of Life, World Flora Online or EU-Nomen? We are collecting such use cases and from those we will propose mechanisms to improve name matching and other services provided by the target aggregator systems. Simple use cases such as checking the names of a local list of insects against the names in the normative European EU-Nomen checklist (a.k.a. Pan European Species Infrastructure PESI) are already largely covered by existing name checking mechanisms. They are often used to detect

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orthographical or taxonomic errors. On the other hand, a common use case in the elaboration of taxonomic treatments with comprehensive cover of the names in the taxonomic group is to identify existing names that have to be investigated for that purpose, i.e., to identify names held by the aggregator that are not already in the treatment. Currently, this use case is not covered by a simple mechanism or service. Another common use case is that local data portals include links to aggregator databases when displaying a name (e.g., Tropicos). This allows linking to the name record in the target aggregator and thus (directly or indirectly), to the target's current or versioned taxonomic concept related to the specific name, and its opinion regarding the nomenclatural status. However, this is accomplished by using the name string as the search parameter, which may or may not work correctly. In contrast, the incorporation of the target aggregator's resolvable ID in the local database establishes an unequivocal link between the local name and the name in the aggregator treatment. This brings about an improvement in data quality for such links. Beyond that, users who did match their names should have the possibility to use a "taxon concept subscription" to be automatically informed of changes in the name usage of their names. This implies that target aggregators of taxonomic data trace changes in the concepts of the taxon where they place a respective name. These may be changes in status (accepted name to synonym or vice-versa) but also the addition of new synonyms to the concept, or the removal of synonyms. We hope that TETTRIs can instigate the implementation of taxon concept subscriptions by target aggregators. Nomenclators (databases that do not treat the taxonomic status of a name) would have to trace changes in nomenclatural notes or status of the name. In the two years remaining for this task in the TETTRIs project, we will continue to test and document services provided by the aggregators and promote the usage of name IDs in local systems and publications, in order to contribute to a linked data landscape for biodiversity information.

Keywords

name ID, taxon concept, CoL, EU-Nomen, PESI, Euro+Med PlantBase

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Conflicts of interest

The authors have declared that no competing interests exist.